

WHAT IS CLAIMED IS:

1. A microscope comprising:
  - an interference contrast transmitted-light device including an analyzer, the analyzer being disposed in an imaging beam path of the microscope and causing a beam deflection;
  - a fluorescence device, the fluorescence device and the interference contrast transmitted-light device being selectively and alternatively insertable into the imaging beam path; and
  - a first and a second glass wedge plate disposed behind the analyzer in an imaging direction so as to compensate to zero for the beam deflection caused by the analyzer.
2. The microscope as recited in claim 1 wherein the first and second glass wedge plates are disposed immediately behind the analyzer in the imaging direction.
3. The microscope as recited in claim 1 wherein the first and second glass wedge plates are disposed relative to each other and relative to the analyzer so as to accurately image, on a CCD chip of a camera with accurate superposition of respective pixels, a first microscope image provided by the interference contrast transmitted-light device and a second microscope image provided by the fluorescence device.
4. The microscope as recited in claim 1 wherein the analyzer and the first and second glass wedge plates are disposed in a common mount.
5. The microscope as recited in claim 1 wherein the analyzer and the first and second glass wedge plates are removably insertable into the imaging beam path.
6. The microscope as recited in claim 1 wherein the analyzer includes a polarizing film.

7. The microscope as recited in claim 1 wherein the first and second glass wedge plates each have a respective same wedge angle.
8. A method for providing overlay images, the method comprising:
  - providing a first microscope image using an interference contrast transmitted-light device and acquiring the first microscope image using a camera, the interference contrast transmitted-light device including an analyzer;
  - providing a second microscope image using a fluorescence device and acquiring the second microscope image using the camera;
  - superimposing the first microscope image and the second microscope image so as to provide an overlay image; and
  - disposing a first and a second glass wedge plate in the interference contrast transmitted-light device behind the analyzer in an imaging direction so that a total beam deflection of the glass wedge plates compensates to zero for a beam deflection caused by the analyzer so as to compensate to zero for an image offset of the first microscope image relative to the second microscope image due to the beam deflection.
9. The method as recited in claim 9 wherein the disposing is performed so as to dispose the first and second glass wedge plates directly behind the analyzer.
10. The method as recited in claim 9 wherein the superimposing is performed by superimposing the first microscope image and the second microscope image on a CCD chip of a camera to within pixel accuracy so as to directly generate the overlay image.
11. The method as recited in claim 9 wherein the superimposing is performed by respectively transferring the first and second microscope images into an image memory so as to add the images to within pixel accuracy.